

**REMARKS**

**I. Status of Claims**

Currently, claims 1-3, 7-14, 23-25, and 57-59 are pending in this application. Applicant has amended claim 57 to recite “wherein the encoded amino acid sequence binds to single stranded DNA.” Support for this amendment can be found throughout the specification, including for example at page 5, lines 12-13, page 60, and Figure 18. Furthermore, the amendment to the claim 57 does not introduce any subject matter that was not already inherently covered by the claim, and thus does not alter the scope or content of the claimed subject matter. Accordingly, no new matter is added by this Amendment.

**II. Rejections Under 35 U.S.C. § 112, First Paragraph**

**A. The Specification Provides Written Description Support for Claims 57-59**

The Office rejects claims 57-59 under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that is not described in the specification so as to reasonably convey to the person skilled in the art that Applicant was in possession of the claimed invention at the time the application was filed. Office Action at 2.

As set forth in the M.P.E.P.:

The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species by actual reduction to practice (see i)(A), above), reduction to drawings (see i)(B), above), or by disclosure of relevant, identifying characteristics, *i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function*

*and structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the claimed genus* (see i)(C), above). See *Eli Lilly*, 119 F.3d at 1568, 43 USPQ2d at 1406.

M.P.E.P. § 2163 (emphasis added).

Claim 57 is directed to “an isolated and purified polynucleotide encoding an archaeal replication factor A (‘RFA’)” and recites *inter alia*, “a polynucleotide encoding an amino acid sequence possessing 95% identity to SEQ ID NO:66.” The Office acknowledges that claim 57 recites structure but asserts that “the rejected claims do not require a specific function.” Office Action at 4. Applicant previously noted that

[t]he claimed polynucleotides encode an “archaeal replication factor A.” As explained in the specification, an archaeal replication factor A has certain functions and activities that can enhance a polymerization reaction. See the specification, e.g. at page 5, lines 12 to 13, which discusses “single-stranded DNA binding proteins (RFA) that bind and stabilize the resulting single-stranded DNA template . . .”

Response filed 12 December 2006 at 7.

Nevertheless, the Office maintains the written description rejection. Although Applicant respectfully disagrees with the rejection, in an effort to expedite prosecution, claim 57 has been amended to recite “a polynucleotide encoding an amino acid sequence possessing 95% identity to SEQ ID NO:66, wherein the encoded amino acid sequence binds to single stranded DNA.” Accordingly, Applicant respectfully requests that the Office withdraws this written description rejection of claims 57-59.

## **B. The Specification Enables Claim 57**

The Office also rejects claim 57 under 35 U.S.C. § 112, first paragraph, as allegedly failing to enable a person skilled in the art to make and use the invention commensurate in scope with the claimed invention. Office Action at 5. The Office argues that “while applicants may provide two assays used to screen for a characteristic or function of an RFA, it remains that the specific function on an RFA protein, continually eluded [*sic*, alluded] to by applicants is unclear, and it remains that applicants have not enabled the extensive genus of functions encompassed by all those functions of any RFA protein.” *Id.* at 8. As noted above, claim 57 has been amended to make explicit what was already implicit in claim 57, i.e., that for the polynucleotide encoding an amino acid sequence possessing 95% identity to SEQ ID NO:66, “the encoded amino acid sequence binds to single stranded DNA.” This amendment renders the enablement rejection moot and, therefore, Applicant respectfully requests that the Office withdraw this rejection.

## **III. Conclusion**

Applicant believes that all of the substantive issues raised in the Final Office Action dated 19 March 2007 have been addressed, and all objections and rejections overcome. Accordingly, Applicant believes that this application is in condition for allowance. If the Office believes anything further is required in order to place this application in even better condition for allowance, Applicant requests that its undersigned representative be contacted at the number listed below to discuss remaining issues.

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Please grant any extensions of time required to enter this paper and charge any additional required fees to Deposit Account No. 50-3740.

Respectfully submitted,  
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